

Amendments to the Claims:

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-85. (Canceled)

86. (New) A comprehensive interface circuit for simultaneously sensing input devices and output devices, comprising:

a first physical circuit package having a first electrical terminal, a second electrical terminal and a plurality of mode circuits disposed thereon, wherein said plurality mode circuits can accomplish digital input, digital output, analog input, and analog output, said first physical circuit package being electrically connected directly, exclusively, and physically to a single sensor or a single actuator, but not both simultaneously, via only said first electrical terminal and said second electrical terminal of said first physical circuit package, and said first electrical terminal and said second electrical terminal being capable of electrical communication with each of said plurality of mode circuits;

a second physical circuit package having a first electrical terminal, a second electrical terminal and a plurality of mode circuits disposed thereon, wherein said plurality mode circuits can accomplish digital input, digital output, analog input, and

analog output, said second physical circuit package being electrically connected directly, exclusively, and physically to another single sensor or another single actuator, but not both simultaneously, via only said first electrical terminal and said second electrical terminal of said second physical circuit package, and said first electrical terminal and said second electrical terminal being capable of electrical communication with each of said plurality of mode circuits; and

a controller that is external to said first physical circuit package and said second physical circuit package, said controller being capable of simultaneously receiving a condition from each sensor and being capable of simultaneously sending commands to each actuator.

87. (New) The comprehensive interface circuit of claim 86, wherein each physical circuit package further has a point controller disposed thereon.

88. (New) The comprehensive interface circuit of claim 86, further comprising an electrical bridge.

89. (New) The comprehensive interface circuit of claim 86, further comprising a monoline serial interface.

90. (New) The comprehensive interface circuit of claim 86, wherein said first physical circuit package is electrically connected to a single sensor and said second physical circuit package is electrically connected to a single actuator.